pN1 stage, 190 pts with pT1-2 N2 while 100 pts with pT1/2 pN3 stage. Hystological subtype was luminal A (lA=Er+/ Pr+ , Her neg G1-G2) in 164 pts; luminal B (lB= Er+/Pr+, Her2 neg G3) in 170 pts; triple negative (TN= Er- Pr- Her2 neg) in 166 pts. Mean age was 65 yrs (range: 40-72 yrs). Patients were treated with chemotherapy according to prognostic features. All patients received whole breast radiotherapy witha a totale dose of 50 Gy + 10 Gy boost and 48-50 Gy on supraclavicular fossa. In case of medial tumors, the internal mammary chain was included. Kaplan-Meyer and paired t-test were used for statistical analysis.

Results: The 5-year LRR and DR were obtained with a median of 6.3 years. The 5-year LRR was 1.9% in lA, 2.8 % in l B , 2.1% in TN (*p*= .72). The 5-year DR was in lA 2%, lB 4.5%, 8 % in TN (*p*<.001) According to nodal status LRR was 1.7% in N1, 2.3% in N2 and 3.8% in N3 status (*p*= .005). The 5-year DR in N1 lA was 2.4 %, for lB was 3%, for TN was 3.5% (*p*= .82) while in N2 lA it was 3 %,for lB was 5% and for TN it was 7.3% (*p*= .06); for N3 lA was 3.5%, for lB was 4.8%, for TN was 8.5%; overall DR of pN1 versus pN2/N3 was statistically significant (*p*= .02). On multivariate analyses high risk of LRR was related to T size (T>2 cm), presence of lymphovascular invasion, lobular hystology; high risk of DR was observed for N> 4 nodes, presence of ECE, Ki 67> 30% and age <50 years.

Conclusion: *:* In this analysis triple negative breast cancer patients with pN1 seem to benefit by nodal radiation, but further studies are necessary

EP-1185
Male breast cancer - outcome with adjuvant treatment
B. Yadav[1], S. Sharma[1], R. Singh[1], S. Ghoshal[1]
[1]*PGIMER, Radiation Oncology, Chandigarh, India*

Purpose or Objective: To analyze outcome with adjuvant treatment in male breast cancer (MBC) patients.

Material and Methods: From 1991 to 2013, 68 men with breast cancer were retrospectively analyzed for demographic, clinico-pathological and treatment outcomes. Disease-free survival (DFS) was defined as time duration from diagnosis to first recurrence. Overall survival (OS) was defined as time duration from pathologic diagnosis to death or last follow-up with any death defined as an event. DFS and OS were estimated using Kaplan-Meier method and compared between patients receiving and not receiving adjuvant treatment using log-rank test.

Results: Mean age was 55 years (range 30-76). Right, left and bilateral BC was seen in 37(54%), 30(44%) and 1(1%) men respectively. Mean duration of symptoms was 25 months (range 1-240). Comorbidity was present in 22(36%) patients. Family history was present in 3(4%) patients. Mean tumor size was 5x5cm (range 1x1-10x10cm). Nipple was involved in 24(35%) men. Early, locally advanced and metastatic disease was seen in 27(39%), 29(43%) and 13(19%) patients respectively. Majority 51(84%) had IDC histology. In radically treated 56 men, NACT with FAC regimen was given to 10(18%) patients; with CR in 4(40%) and PR in 6(60%) patients. Mastectomy was done in 48(86%) and WLE in 8(14%) men. Margins and nodes were positive in 13(23%) and 30(54%) men respectively. ER, PR and Her2neu positive were 22(39%), 12(22%) and 2(3.5%) patients respectively. Adjuvant radiotherapy, chemotherapy and tamoxifen was received by 45(80%), 25(45%) and 37(66%) men respectively. Median follow up was 52 months (range 1-278). Local recurrence occurred in 8(14.5%) and distant metastasis in 18(33%) men respectively. DFS and OS at 10 year was 41% and 49% respectively. DFS and OS was significantly better in men with adjuvant radiation (53% vs 12%, p=0.002 and 57% vs 22%, p=0.005 respectively) and hormonal therapy (58% vs 14%, p=0.004 and 58% vs 39%, p=0.036). Chemotherapy had no impact on DFS and OS.

Conclusion: Adjuvant radiotherapy and hormonal therapy significantly improve DFS and OS in male patients with breast cancer. Chemotherapy had no impact on DFS and OS.

EP-1186
Late side effects and cosmetic outcome after intraoperative electron radiotherapy in breast cancer
C. Matuschek[1], E. Boelke[1], K. Halfmann[1], M. Ghorbanpour[1], J. Hoffmann[2], T. Fehm[2], W. Budach[1], S. Mohrmann[2]
[1]*University Hospital Düsseldorf Heinrich Heine University Düsseldorf, Radiotherapy and Radiooncology, Düsseldorf, Germany*
[2]*University Hospital Düsseldorf Heinrich Heine University Düsseldorf, Gynecology, Düsseldorf, Germany*

Purpose or Objective: The intraoperative boost radiotherapy is a validated method to irradiate the tumor bed immediately after surgery with an effective dose. The most homogeneously dose can be achieved with electrons (intraoperative radiotherapy with electrons = IOERT). Because of the high individual dose are chronic side effects of particular interest. Therefore we investigated the late side effects with a median of 31 months (5-54 months).

Material and Methods: From 10/2010 until 12/2013 n=138 patients received IOERT (NOVAC 7, New Radiant Technology, Aprilia, Italy) with 1x10 Gy covering the 90% isodose followed by whole-breast radiotherapy with 50.4 Gy/1.8 Gy SD. 58 patients were re-evaluated regarding late side effects and cosmetic outcome until 10/2015. The energy was determined by measuring the distance from the surface tot he rib by intraoperative ultrasound. We investigated the radiogenic side effects according to the LENT-SOMA criteria. Furthermore, we evaluated the cosmetic results (subjective / objective).

Results: Pain in the irradiated breast was denied by 81% of all patients. Pain grade 1 was reported by 15.5% and grade 2 by 3.4% of the patients. There was no breast edema detectable in 91.4%. We found an edema grade 1 in 5.2% and grade 2 in 3.4% oft he patients. There was no significant correlation between edema and pain (p = 0.326). A lymph edema grade 1 in the arm occurred in 5.2%. A retraction of the scar was not recorded for 91.4%, a retraction grade1 in 6.9% and a retraction grade 2 in 1.7%. None of the patients developed a radiogenic ulcer. Fibrosis was not recorded in 75.9%, a fibrosis grade 1 in 20.7%, a fibrosis grade 2 in 3.4% .Telangiectasia's have not occurred in 96.6%. No visible hyperpigmentation was found for 70.7%, and 29.3% had a grade 1 hyperpigmentation 1. One patient showed inhomogenities in the heart MRT, which was performed to rule out heart disease. One patient developed pneumonitis. The cosmetic results (patient's view) was very good in 41.4%, good in 41.4%, moderate in 10.3% and bad in 3.4%. The assessment of the physician (physician`S view) was in 48.3% very good, good in 34.5%, moderate 6.9% and bad in 1.7%. Moderate or bad results mostly occured in patients with small breasts and large tumor size.

Conclusion: IOERT followed by whole-breast radiotherapy by 50.4Gy/1.8 Gy SD is associated with a low incidence of late side effects. The cosmetic outcome is after objective and subjective assessment in the majority (82.8%) of patients very good or good.

EP-1187
T-lysyal based cream (Repalysyal) in the prevention of acute skin toxicity in breast cancer patients
A. Rese[1], E. D'Ippolito[1], F. Piccolo[1], P. Romanelli[1], A. Romano[1], L. Faraci[1], E. Toska[1], F. Pastore[1], V. De Chiara[1], L. Coppa[1], G. Salzano[1], A. Farella[1], R. Solla[1], M. Conson[1], L. Cella[2], R. Pacelli[1]
[1]*University of Naples "Federico II", Advanced Biomedical Sciences, Naples, Italy*
[2]*National Research Center, Institute of Biostructures and Bioimaging, Naples, Italy*

Purpose or Objective: Acute skin toxicity is a frequent side effect of breast irradiation affecting quality of life of breast cancer patients. Ameliorating these unwished events may have a positive impact on the therapeutic course of the patients. In this study we tested a thymine-lysine-hyaluronic

acid based cream in the prevention of radiation induced skin toxicity (RIST).

Material and Methods: Patients undergoing breast irradiation after conservative surgery for breast cancer were considered for the study. The patients were randomly assigned to use T-lysyal (repalysyal, a thymine-lysine-hyaluronic acid based cream) vs. patients using a moisturizing cream. The patients were stratified for age, breast size, and phototype. Radiation therapy was delivered with 3D conformal radiation therapy, with 20 fraction of 2.25 Gy (concomitant boost dose 2.5 Gy) on the residual breast for a total dose of 45 Gy in 4 weeks (50 Gy boost dose to the tumoral bed). The appearance of any grade of skin toxicity was the endpoint of our study. RIST was assessed weekly from the beginning of treatment and graded according to the RTOG acute skin toxicity scale.

Results: Fifty two consecutive patients undergoing radiation therapy after breast conserving surgery for breast cancer were randomized to have the skin treated with 2 daily application of Repalysyal or a simple moisturizing cream. Median age of the patients was 54. At the end of treatment (4 weeks) 15/26 patients in the Repalysyal group vs. 26/26 patients in the control group had any grade of skin toxicity (p=0.0001). Moreover, among patients that developed skin toxicity, 3/15 vs. 18/26 developed G2 toxicity in Repalysial and control group, respectively (0.0036).

Conclusion: Repalysyal ameliorates the acute skin toxicity profile of patients undergoing radiation therapy after conservative surgery for breast cancer.

EP-1188

The protective role of lipofilling in women subjected to radiotherapy.

N. Costantino[1], V.M. Margheriti[1], M. Santoro[2], E. Mazzei[2], M.A. Molinaro[2], R. Mole'[2], A. Destito[2], D. Pingitore[2], C. Bianco[1]

[1]*University Of Catanzaro "Magna Graecia", Oncology Radiotherapy, Catanzaro, Italy*

[2]*Hospital Of Catanzaro "Pugliese-Ciaccio", Oncology Radiotherapy, Catanzaro, Italy*

Purpose or Objective: Many authors suggest, when the patients is suitable, the complete reconstruction of the breast which has undergone radiation by autologous tissue, discouraging prosthetic placing because of the high level of post-radiotherapic complications observed. The aim of this study is the assessment of radiation-induced outcomes in women with breast cancer who have been subjected to radiotherapy after reconstruction.

Material and Methods: Between January 2011 and March 2013 we chose 17 patients, median age of 45 years; 15 of these had undergone a radical mastectomy and 2 a quadrantectomy. During the mastectomy 7 patients were given an immediate prothesis, 9 underwent reconstruction by lipofilling by way of classical breast expander and following prothesis , 1 quadrantectomy and breast remodelling by lipofilling. All the patients received adjuvant chemiotherapy and/or hormonotherapy, conformational radiotherapy on the thoracic wall or residue breast(total dose of 50 Gy) and local prophilactic therapy so as to minimize the radiation-induced adverse effects. All patients have gone thruogh a clinical-instrumental follow-up over an median time of 12 months and an assessment of cutaneous toxicity according to the SOMA-LENT scale.

Results: It was observed in 2 of the cases capsular contracture of the prothesis of high grade which needed further replacing and apperance of cutaneous ulcers (grade 2) in 1 patient ;in the remaining cases of prosthetic reconstruction erythema and edema were found (grade2). A tolerable erythema was observed in the patients with expander and simultaneous lipofilling without late fibrosis. No complications were found in the patients with rimodelling by lipofilling post quadrantectomy, with conservation of the shape and simmetry of the breast.

Conclusion: The grafting of the autologous fat, high in stamina cells, represents an alternative technique in breast reconstruction with complete functional recovery of the tissue , so improving the the surrounding tissue and therefore the capacity to heal in the irradiated tissues. The use of lipofilling is becoming an ever increasing importance as a coadjuvant in the breast reconstruction and avoids radiotherapy-induced complications. This gives notable psychophysical benefits and improves the quality of life in the patients.

EP-1189

Hypofractionated RT with or without boost in breast cancer: an institutional analysis of toxicity

C. Mariucci[1], A.M. Podlesko[1], E. Perrucci[1], L. Falcinelli[1], V. Bini[2], M. Di Benedetto[1], E. Arena[1], S. Nucciarelli[1], V. Lancellotta[1], I. Palumbo[1], C. Aristei[1]

[1]*Ospedale Santa Maria della Misericordia, Radiotherapy, Perugia, Italy*

[2]*Ospedale Santa Maria della Misericordia, Internal Medicine Endocrin and Metabolic Sciences, Perugia, Italy*

Purpose or Objective: Whole breast irradiation (WBI) is the gold standard after breast conserving surgery (BCS), followed by an additional boost when negative prognostic factors are present. WBI can be administered with hypofractionated schedules, on the basis of the relatively low α/ß ratio for breast cancer (BC). The aim of our study was to investigate the effects of an additional hypofractionated boost (HB) in terms of acute and short-term late skin and subcutaneous tissue toxicity.

Material and Methods: Between March 2014 and April 2015 156 women, median age 62 years (range 34-88) with early BC (pT1-pT2, N0-N1) underwent hypofractionated RT (single dose of 2.65 Gy to 42.4 Gy in 16 fractions over 3 weeks) ± HB (single dose 2.65 Gy to 10.6 Gy in 4 fractions). The study enrolled 71 patients (pts) without HB (45.5%) and 85 with HB (54.5%). The additional HB was delivered if risk factors such as young age, positive nodes, negative hormonal receptors, high Ki67 or HER2/neu overexpression were present. According to the risk of relapse chemotherapy (CT) and/or Hormonal Therapy (HT) and/or Trastuzumab were administered. For the analysis of the acute and late toxicity CTCAE 4.03 scale was used. Pts had physical examination at 5th, 10th, 16th and 20th day of RT and then 1 and 6 months after the end of treatment. Statistical analysis was carried out by the Chi-square test and the Mann–Whitney's U-test was used to compare continuous variables.

Results: HB group characteristics were: younger age (median 56 *vs* 67), longer time gap between surgery and RT (median time 20 weeks *vs* 16), more advance stage (43.6 % stage II *vs* 14.1%), CT (37 pts *vs* 2), HT (71 pts *vs* 48). Hypofractionated RT was well tolerated with or without HB and no G3 overall toxicity was documented. HB did not contribute to major skin toxicity; at the end of the treatment only 14 cases had G2 dermatitis *vs* 5 which did not receive HB (p = 0.073).One month after RT HB and CT significantly impacted upon edema occurrence: 15.5% HB group *vs* 1.5% no HB (p = 0.008) and 18.4 % CT group *vs* 6.2% no CT (p = 0.016). Furthermore, CT emerged as a risk factor for hyperpigmentation 6 months after RT: 37.0% *vs* 10.4% (p = 0.003). Attached Table summarizes the toxicity time-related events.